

STABILIZED CD-4 ONE-PART FILM DEVELOPER CONCENTRATES

ABSTRACT OF THE DISCLOSURE

5 Photographic developer replenisher concentrates comprising
more reactive developers, like 4(N-ethyl-N-2-hydroxyethyl)-2-
methylphenylenediamine (CD-4) undergo rapid oxidation, and
consequently, have shorten shelf-life stabilities. Hydroxylamine
10 type derivatives, while disclosed as being useful as a class of
antioxidants for stabilizing photographic developer replenishers,
most were found to impart either inadequate shelf-life stability
for CD-4 developer, or interfered with "satisfactory developer
performance." Surprisingly, it was discovered the shelf-life
15 stability of replenisher concentrates comprising CD-4
photographic developer could be extended for periods of 2 years
or longer, and also provide satisfactory developer performance
when the hydroxylamine antioxidant comprises at least N,N-bis(2-
sulfoethyl) hydroxylamine (SEHA) or a salt thereof.